comparison to evaluate the efficacy and safety, with the study of Jiao and cols., an hypothetical cohort were placed in accordance with this efficacy and the Hoehn and Yahr states, an analysis of incremental cost-effectiveness ratio (ICER) was performed. We used a markov model to estimate the CE and performed sensitivity analyses and varying disease progression parameters and costs. The outcome of effectiveness was life years gained. **RESULTS:** For patients with early PD in monotherapy, treatment with levodopa had lower costs and more effectiveness than pramipexole, rasagiline and selegiline treatments. With a time horizon of 5 years, levodopa was 5.04 life years gained and cost $236,750.52, the cost of selegiline was $247,094.21 with 4.1 life years gained, pramipexol had a cost of $247,420.46 with 4.1 life years gained and finally rasagilina $254,006.56 with 3.17 life years gained, all values of ICER were less than one GDP per capital. This results showed that levodopa was the dominant alternative. The sensitivity analyses confirm the results. **CONCLUSIONS:** Findings of this study indicate that levodopa provides the major effectiveness and the lower cost compared to pramipexole, rasagiline and selegiline as first treatment option in patients with early Parkinson disease (measured by UPDRS) in monotherapy.

PND36

THE COST-EFFECTIVENESS OF LISDEXAMFETAMINE DIMESYLATE FOR THE TREATMENT OF BINGE EATING DISORDER

Ágh T[1], Pawaskar M[2], Voko Z[1], Nagy B[1], Lachaine J[3]

[1]*Syreon Research Institute, Budapest, Hungary,* [2]*Shire Development LLC, wayne, PA, USA,* [3]*University of Montreal, Montreal, QC, Canada*

OBJECTIVES: Lisdexamfetamine dimesylate (LDX) demonstrated efficacy in terms of reduced binge eating days per week in adults (18-55 years old) with binge eating disorder (BED) in 2 randomized control trials (RCTs). This study examined the cost-effectiveness of LDX compared to placebo for the treatment of adult BED patients in the United States (U.S.). **METHODS:** A decision-analytic Markov cohort model comparing LDX to placebo was developed using 1-week cycles and a 52-week time horizon. Based upon the 5th Edition of the Diagnostic and Statistical Manual of Mental Disorders criteria of BED, the model comprised the following health states: non-symptomatic BED, sub-threshold BED, mild BED, moderate BED and severe and extreme BED. Model parameter estimates including transition probabilities, utility values and resource utilization were obtained from RCTs, a survey, and literature. All cost data were inflated to 2013. The primary outcome was incremental cost-effectiveness ratio (ICER). The base case analysis assumed a 12-week course of treatment, based upon RCTs' treatment duration. **RESULTS:** Patients on LDX therapy gained 0.0064 quality-adjusted life years (QALY) compared to patients on the NPT arm, while the average total cost was $175 higher for LDX therapy. LDX therapy yielded the ICER of $27,512 per QALY gained vs placebo and was shown to be cost-effective given a willingness-to-pay threshold of $50,000. **CONCLUSIONS:** Treatment of BED with LDX showed an increase in QALYs at an acceptable cost and considered cost-effective at the commonly used willingness-to-pay thresholds in the U.S. There is a need to generate additional scientific evidence supporting long-term benefits of LDX therapy for BED.

PND37

THE IMPACT OF NEUTRALIZING ANTIBODY TESTING ON THE COST-EFFECTIVENESS OF INJECTABLE DISEASE MODIFYING TREATMENTS FOR RELAPSING REMITTING MULTIPLE SCLEROSIS

Andreykiv M[1], Plich A[1], Prüfert A[2], Heemstra L[2], Van Engen A[2]

[1]*Teva Pharmaceuticals Europe B.V., Amsterdam, The Netherlands,* [2]*Quintiles Consulting, Hoofddorp, The Netherlands*

OBJECTIVES: To evaluate the cost-effectiveness of glatiramer acetate (COPAXONE®) for relapsing-remitting multiple sclerosis (RRMS) compared to interferons-β (IFNs) in scenarios with and without routine testing for the presence of neutralizing antibodies (NAbs) in people receiving IFNs. NAbs reduce the therapeutic benefits of interferons-β (IFNs). Glatiramer acetate does not develop NAbs. **METHODS:** The impact of NAb testing was evaluated using a Markov model previously developed for the Netherlands. The model followed patients over 50 years through 21 health states: Expanded Disability Status Scale (EDSS) 0-9 for patients with RRMS and secondary progressive multiple sclerosis, respectively, and death (EDSS 10). Baseline demographics, transition probabilities, treatment-specific relative risks, and utility values were obtained from published literature. Health resource use was based on the products' Summary of Product Characteristics and treatment guidelines. 2014 unit costs were based on national tariffs and published data from the Netherlands. The analysis was conducted from the societal perspective. **RESULTS:** In the scenario without routine NAb testing total treatment costs of glatiramer acetate were lower versus most IFNs. It also resulted in higher number of quality-adjusted life-years compared to all IFNs as some IFN patients received ineffective treatment. In the scenario with routine NAb testing total treatment costs of all IFNs were higher than in the other scenario and higher than glatiramer acetate due to switching to more expensive treatments than first-line injectables. In both scenarios glatiramer acetate was dominant against most IFNs. **CONCLUSIONS:** In both scenarios where NAb testing is routine practice or not, glatiramer acetate is less costly and more effective versus interferon-β-1a 44mcg, 30mcg, and 22mcg for RRMS.

PND38

TRACKING HEALTHCARE UTILIZATION (COST) IN PSEUDOBULBAR AFFECT PATIENTS TREATED WITH NUEDEXTA

Palmgren M[1], Cyhaniuk A[2], Yonan C[3], Potente E[3]

[1]*Int'Ovation, Marietta, GA, USA,* [2]*AC Analytical Solutions, Barrington, IL, USA,* [3]*Avanir Pharmaceuticals, Inc., Aliso Viejo, CA, USA*

OBJECTIVES: Pseudobulbar affect (PBA) is an underdiagnosed condition characterized by sudden, involuntary episodes of crying and/or laughing in patients with traumatic brain injury or certain neurologic diseases, including multiple sclerosis, amyotrophic lateral sclerosis, stroke, Alzheimer's disease, and others. Studies suggest that PBA symptoms are associated with added healthcare utilization and costs. NUEDEXTA (dextromethorphan/quinidine) is the only FDA and EMA approved PBA treatment. The primary objective of this analysis is to evaluate healthcare utilization and costs in PBA patients before and after dextromethorphan/quinidine treatment. For this analysis type of service unit utilized and overall utilization are both functions of cost. **METHODS:** Retrospective analysis using anonymized patient level data from a large national health insurer. Claims data (both commercial and Medicare) were assessed for each eligible patient, for an observation period including the 12 months before (baseline) and 12 months after (follow-up) the Index Date, defined as the first prescription fill date for dextromethorphan/quinidine. Eligibility requirements were an Index Date between January 1, 2007 through August 31, 2013, and continuous insurance eligibility for the entire 24 month observation period . **RESULTS:** A cohort of 1245 patients treated with dextromethorphan/quinidine was identified; 488 of whom met eligibility requirements. Mean healthcare costs, primarily driven by utilization, were reduced in the 12 months following dextromethorphan/quinidine use compared with the 12 months pretreatment, including reduction of inpatient costs (27%), emergency room visits (19%), stroke-related postcare (73%) and ancillary costs (2%). Pre-index costs were not reflective of costs related to acute stroke treatment in stroke patients, as no patient had a stroke during the 12-month pre-index (baseline) period. Despite the added prescription cost of dextromethorphan/quinidine, the overall weighted mean cost reduction was 5%. **CONCLUSIONS:** Patients treated with dextromethorphan/quinidine (NUEDEXTA) showed a decrease in healthcare utilization and costs compared to the pre-index period.

PND39

HEALTH CARE RESOURCE UTILIZATION BEFORE AND AFTER NATALIZUMAB INITIATION AMONG MULTIPLE SCLEROSIS PATIENTS IN GERMANY

Watson C[1], Prosser C[2], Braun S[2], Landsman-Blumberg P[3], Naoshy S[1]

[1]*Biogen Idec, Cambridge, MA, USA,* [2]*Xcenda GmbH, Hannover, Germany,* [3]*Xcenda LLC, Palm Harbor, FL, USA*

OBJECTIVES: To evaluate multiple sclerosis (MS)-related health care resource utilization and costs prior to and after initiating natalizumab in Germany. **METHODS:** A retrospective claims database analysis was conducted using the Health Risk Institute research database to identify MS patients initiating natalizumab (index date) between 1/1/2009 and 12/31/2012. Patients had 24 months of continuous enrollment (12 months before [pre-period] and 12 months after [post-period] the index date) and at least one natalizumab prescription in the 4th quarter after the index date. Furthermore, patients with and without other disease-modifying treatment (DMT) during the pre-period were examined. Patient characteristics, MS-related inpatient stays, and corticosteroid use were compared in both periods using paired statistical tests, where appropriate. **RESULTS:** The study included 193 patients, mean age 37.1 years (standard deviation 10.2), 64.8% female. The majority (75.1%) used a DMT during the pre-period. After initiating natalizumab, there was a significant reduction in the percentage of patients with MS-related inpatient stays (49.7% versus 14.0%, P<0.001), MS-related inpatient costs (mean €3,759 versus €815, P<0.001), and length of stay (mean 7.0 days versus 2.7 days, P<0.001) compared to the pre-period. In patients without pre-period DMTs, there was a significant reduction in the percentage of patients with MS-related inpatient stays (–77.3% P<0.001) and costs (-€3052.0; P<0.001) and patients with DMTs in the pre-period showed similar significant reductions (–70.2% and –€2908.2, respectively, P<0.001 for both). Compared to the pre-period, there were significant reductions in corticosteroid use for all natalizumab initiators (–62.3%, P<0.001), which corresponded to a mean corticosteroid cost-per-patient reduction of –€290.75 across all natalizumab users (P<0.001). **CONCLUSIONS:** In Germany, the initiation of natalizumab was associated with significant decreases in MS-related inpatient stays, and corticosteroid use with corresponding decreases in the average length of stay and costs among natalizumab users with and without DMTs in the prior year.

PND40

SKELETAL MUSCLE ACTIVITY AND RESOURCE TOOL FOR SPORADIC INCLUSION BODY MYOSITIS (SMART-SIBM): CHARACTERIZATION OF RESOURCE UTILIZATION AND FINANCIAL BURDEN EXPERIENCED BY SIBM PATIENTS

Barghout V[1], DeMuro C[2], Price M[2], Lewis S[2], Tseng B[3]

[1]*VEB Healthcare LLC., Morristown, NJ, USA,* [2]*RTI Health Solutions, Research Triangle Park, NC, USA,* [3]*Novartis Pharmaceuticals, Cambridge, MA, USA*

OBJECTIVES: sIBM is a progressive idiopathic inflammatory myopathy characterized by atrophy and weakness of proximal and distal muscle groups; knee extensors and wrist/finger flexors and dysphagic processes are frequently involved. Progressive weakness results in loss of independence and need for assistive devices and supportive care. The progressive nature of sIBM leads to increasing medical expenses, many of which are not covered by third-party payers, making quantification difficult using existing databases. SMART-sIBM, a self-report tool, was developed to better characterize out-of-pocket expenses and non-reimbursable items not captured by health care systems. **METHODS:** SMART-sIBM was developed based on in-depth interview data from 20 sIBM patients, review of existing resource-use measures, and input from clinical experts (n=9). SMART-sIBM captures resource utilization and costs of sIBM over a 6-month, retrospective recall period, including out-of-pocket costs and third-party payer expenses. A cross-sectional study (n=102 sIBM patients) was conducted in the US to gather preliminary resource utilization and patient financial data. Draft versions were reviewed by clinical experts and patients independently, and were refined before use in the cross-sectional study. **RESULTS:** Patients had a mean age of 66 years, disease duration of 1-18 years, and varied physical limitations. All patients reported need for frequent health care visits, and 80% indicated need for house/vehicle modifications and purchase of assistive equipment to accommodate sIBM-related disabilities. Nearly one-third of patients required paid help with household tasks, while more than one-half relied on help from unpaid caregivers (e.g., spouse, friend). Nearly half (45%) reported changes in job status because of sIBM-related functional limitations. **CONCLUSIONS:** Results of